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PACKAGING FOR POURABLE GOODS MADE FROM A FOLDING CUT OF CARDBOARD OR THE LIKE [VERPACKUNG FÜR SCHÜTTFÄHIGE GÜTER AUS EINEM FALTZUSCHNITT AUS KARTON ODER DERGLEICHEN]

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Description

The invention relates to packaging for pourable goods which is produced from a folded cut made of cardboard or the like with side walls or side wall parts and bottom and top wall parts which are hinged to one another by folding lines.

Such packaging is known in various embodiments and is used in particular for powder detergents and cleaning agents as well as for tablet-shaped dishwashing detergents.

With such packing, from which the product is removed a part at a time or with measuring spoons or the like, inside the folding box which forms the outside cover there is an additional inner frame made of cardboard, corrugated board, or the like, which imparts the necessary stability to the packaging and at the same time forms a collar when the package is opened in order to facilitate simple reclosure of the opened top.

The disadvantage of such packaging obviously is that along with the packaging proper, which is formed as a folded box, a second, additional cardboard, corrugated board, or other material layer is required, which naturally makes manufacture more expensive and complicated,, and also leads to more materials use and weight increase. Further, the known packaging often cannot be emptied fully and completely, as product residue, in particular of powder detergent and cleaning agents, settles between the two material layers. If the known packaging is broken down and sent for used paper recycling after use, which on the whole is desirable, often product residue which comes loose between the two material layers during this breakdown process contaminates the household or inadvertently enters the recycling process, thus hindering it.

It is the task of the invention, therefore, to improve such packaging so that with good stability and reclosability, it features simple manufacture and low materials usage, as well as good recyclability.

This task is accomplished in accordance with the invention with the packaging of the type described at the start, such that a top part which is hinged via a folding line to a side wall is tearable at least in part along at least one tear line which borders the folding line, and in the tearable region at the free end it is supplied with an opening and closing flap, while the opposite side wall is supplied with a tuck-in flap for insertion of the opening and closing flap.

With such packaging the disadvantages that arise in the known packaging are resolved in a simple and certain manner, since by dispensing with an additional inner frame and forming a reclosable, self-supporting scoop package from a single cardboard cut, intermediate spaces in which product residue can settle can be avoided. At the same time, the packaging costs are drastically reduced, as the entire additional inner frame is omitted. The manufacture is simplified, as the previous inner frame need no longer be included in the folded box. And on the other hand, the break-down of the packaging after use and complete emptying is simplified, and waste paper generation is considerably reduced.

Preferably, the opposite side wall is provided with a partly adhered flap for the formation of the provided tuck-in flap. In this way, in an extremely simple and economical way, a tuck-in flap can be formed for insertion of the opening and closing flap. This can be implemented especially simply by hinge-connecting a flap from the side wall, which is folded once and partly adhered to the opposite side wall, and then provided with a slit or the like for the formation of an insertion slot.

In an especially advantageous embodiment of the invention, the opening and closing flap is partly adhered to the opposite side wall on the outside, while the opposite side wall in the region of the adhesion and the folding line between the side wall and the partly adhered flap features perforations or the like for tearing off the adhered side wall region. In this way, during opening of the top part, a partial region of the upper edge of the opposite side wall, where the tuck-in flap is located, is torn off and the

tuck-in flap formed by the folding and adhering of the elongated flap is opened, and the insertion slot is formed.

Here it is further advantageously provided that the opposite side wall features tearable perforations only in one region of the adhesion and the folding line, and the opening and closing flap for it features spatially matching perforations. The result is that when the perforation and the top part are torn off, regions of the opposite side wall at the upper edge still remain and assure stable holding of the packaging, even in the upper region. In addition, this facilitates the opening of the tuck-in flap and the insertion of the opening and closing flap, in particular when the folding cut and the perforation of the opening and closing flap run conically outward.

Further, the invention advantageously provides that the tear line of the top part is formed as counterscoring to split the cardboard layer during tearing to form an overlap and contact surface between the exposed and fixed region of the top part. During reclosure of the opened top part, the two split cardboard layers can overlie and overlap one another, which in connection with the insertion of the opening and closing flap in the tuck-in flap leads to very good reclosure of the packaging. The remaining split cardboard layer, in combination with the fixed, partially adhered flap of the tuck-in flap assumes the function of an inner frame or collar, which is useful for a simple and as complete as possible reclosure of the packaging.

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In order to facilitate the reclosure of the packaging and the insertion of the opening and closing flap in the tuck-in flap, it is provided that the opening and closing flap feature a cut which tapers towards the outside.

It is further advantageously provided that part of the side walls is at least partly formed to be multi-ply. This has the advantage, especially when the side wall regions are at least partly adhered to one

another, which the invention in an amply advantageous embodiment likewise provides for, that the side walls enhance the stability of the packaging, and make it possible to use a folding cut with lesser wall strength. The strengthened side wall regions here assume the bearing function of the earlier additional cardboard and corrugated board inserts, and improve the self-supporting packaging properties.

To improve packaging stability, in a further advantageous embodiment it is provided that the folding cut feature on the outside adhesive flaps which are hinged to the free side wall, which are partly punched out of the flap hinged to the side wall, to adhere to the top part and the adjacent side wall regions. This creates a stability-enhancing connection between several side wall regions and the top part, as well as powder-tight packaging.

In particular, the adhesion with the corner regions of the top part improves the seat of the fixed region of the top part and ensures that during tearing of the exposed top part the latter is not also torn off and damaged.

The invention further provides in a further embodiment that the opening and closing flap feature another folding line, which facilitates insertion in the tuck-in flap.

In a further advantageous embodiment, the invention also provides that one side wall feature a punched-out region backed with transparent film to form a viewing window. This creates a readily discernable viewing window, especially from the front side of the packaging, through which, depending on the embodiment, for example the packaging contents or filling level is visible.

The invention is explained in more detail below with reference to the drawing using examples, wherein:

Fig. 1 shows the folding cut of the packaging with adhesive surfaces and perforation lines in non-adhered state.

Fig. 2 shows a perspective representation of the packaging according to the invention in filling position;

Fig. 3 shows a perspective representation of the closed packaging according to the invention in usage position;

Fig. 4 shows a perspective representation of the closed packaging according to the invention in usage position;

The packaging according to the invention for pourable goods in the drawing is generally designated by 1, and is formed from a cardboard folding cut, which is generally designated by 2.

This folding cut 2 features a side wall 4, a bottom wall part 5, a side wall 6, and a top part 7 which are initially laterally hinged to one another via folding lines 3.

Via the folding lines 8, the side wall parts 4a, 5a, 6a, and 7a, and the side wall parts 4b, 5b, 6b, and 7b are hinged respectively to the side walls 4, 6, and the bottom and top wall parts 5 and 7 respectively. Here when assembled the side wall parts 4a to 7a form one side wall and the side wall parts 4b to 7b form an opposite side wall, which is shown in Figures 3 and 4 in multi-ply, adhered position, and designated by 17.

An opening and closing flap 9 is hinged to the top part 7 at the free end via a folding line 3a, and in the represented embodiment features a cut which tapers towards the outside.

A flap 11 is hinged to the opposite side wall 4 likewise on the outside via a folding and perforation line 10. It is made to overlap with the side wall 4 by folding along the folding line 10, and is adhered at least in the region 12. The side wall further features an arching perforation 13 for tearing off the side wall region 14.

Preferably the folding cut 2 features on the outside the adhering flaps 15a and 15b which are hinged to the free side wall 4, and in the regions 16 are punched out of the flap 11 which is hinged on the

outside to the side wall 4, and which in the region 16 serve to adhere with the top part 7 and in their remaining region serve to adhere with the innermost layer of the multi-ply side wall regions 4a to 7a or 4b to 7b.

In the presented embodiment, the top part 7 features tear lines 18 each bordering the folding line 3, which in the presented embodiment are formed as the counterscoring 18a and 18b. By tearing off of the top part 7 by means of the opening and closing flap 9 which is hinged to it, the top flap 19 is created, which is shown in figure 3 in closed state and in figure 4 in opened state, and is upwardly pivotable about the folding line 3.

In the presented embodiment, the folding cut 2 further features in the region of the opening and closing flap 9 additional perforations 20, 20b which in adhere state coincide in places with the perforation 13 of the opposite side wall parts 4. The tear lines 18 abut them in the region of the top part 7.

From the folding cut 2, the packaging 1 can be produced in accordance with Fig. 2 in that the flap 11 initially coated with an adhesive layer 12 is folded 180° and adhered in places to the side wall 4. Then along all the folding lines 3, the walls or wall parts 4, 5, 6, and 7 are folded in, and at the same time the opening and closing flap 9 at least in places (region 9a) is adhered to the opposite side wall 4 on the outside. At the same time the bonding flaps 15a and 15b, hinged to the free side wall 4 on the outside, are also adhered to the adjacent side wall regions 7a, 7b, and the punched-out regions 16 to the top part 7.

In this way a tubular cut is obtained which can be folded, stored, and transported flat.

For filling, the cut is straightened up, the side wall regions 4a to 7a are preferably closed in a labyrinth closure, and advantageously at least partly adhered to one another. The packaging is placed with the thus formed side wall 17 down and the opened side wall regions 4b to 7b up and then filled.

Then the side wall regions 4b to 7b likewise are preferably closed in a labyrinth closure and at least partly adhered to one another. For transport and use, the packaging is turned 90° to the usage position.

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For opening, the free end of the opening and closing flap 9 is raised and pulled in an arc upward and backward and pulled off along the perforations 20a, 20b. Here the perforations 13 and 10 of the opposite side wall 4 in the region of the adhesion with the opening and closing flap 9 is torn upward, and the side wall region 14 off. The latter remains adhered to the torn opening and closing flap 9 and strengthen it. In this way, the tuck-in flap 25 formed from the folded flap 11 and suggested in Fig. 4 is released or opened.

During tearing of the opening and closing flap 9, the top part 7 then tears along the tear lines 18, which are designed as the counterscoring 18a, 18b, and connect to the perforations 20a, 20b. Here the cardboard layer of the top part 7 is split because of the counterscoring 18a, 18b, so that the overlap and contact surfaces 21a and 21b are formed. When the top 19 formed by tearing from the top part 7 is pulled back, the overlap and contact surfaces 21a and 21b of the exposed and fixed regions of the top part 7 again lie tightly on one another. The opening and closing flap 9 is inserted in the tuck-in flap 25 formed by the tearing, and again forms a good and certain closure of the packaging. Here an advantageously provided additional folding line 22 about in the middle of the opening and closing flap 9 facilitates insertion in the tuck-in flap 25.

A punched opening 23 in the opposite side wall 4 backed with transparent film 24 allows inspection of the packaging contents and or the fill status of the packaging.

Naturally, the invention is not restricted to the presented exemplary embodiments. Further embodiments of the invention are possible without abandoning the basic notion. Thus for example, the top part 7 can also be tearable along a tear line 18 which at least in places coincides with the folding

lines 8 abutting the side wall parts 7a, 7b, and the opening and closing flap 9 can extend over the entire breadth of the top part 7 and the opposite side wall part 4. The same applies to the tuck-in flap 25 and so forth.

Claims

1. Packaging for pourable goods, comprising a folding cut made of cardboard or the like with side walls or side wall parts and bottom and top parts respectively hinged to one another via folding lines, characterized in that the top part (7) hinged via a folding line (3) to one side wall (6) is tearable at last in places along at least one tear line (18) adjacent to the folding line (3), and that in the tearable region at the free end it is provided with an opening and closing flap (9) hinged via a folding line (3a), while the opposite side wall part (4) is provided with a tuck-in flap (25) for insertion of the opening and closing flap (9).

2. Packaging in accordance with claim 1, characterized in that the opposite side wall (4) is provided with a partly adhered flap (11) at the top for formation of the tuck-in flap (25).

3. Packaging in accordance with claim 1 or 2, characterized in that the opening and closing flap (9) is adhered at least in part with the opposite side wall (4) on the outside, and the opposite side wall (4) in the region of the adhesion (12) and along the folding line (3) features perforations or the like between the side wall (4) and the partly adhered flap (11) for tearing off the adhered side wall region (14).

4. Packaging in accordance with claim 3, characterized in that the opposite side wall (4) only a partial region of the adhesion (12) and the folding line (3a) features tearable perforations (10,13), and the opening and closing flap (9) features perforations (20a, 20b) which coincide spatially with them.

5. Packaging in accordance with one of the previous claims, characterized in that the tear line (18) of the top part (7) is formed as counterscoring (18a, 18b) for splitting the cardboard layer during tearing

to form an overlap and contact surface (21a, 21b) between the exposed and fixed region (19) of the top part.

6. Packaging in accordance with one of the previous claims, characterized in that the opening and closing flap (9) features a cut which tapers towards the outside.

7. Packaging in accordance with one of the previous claims, characterized in that a part of the side walls is formed as multi-play at least in parts (4a to 7a, 4b to 7b).

8. Packaging in accordance with claim 7, characterized in that the multi-ply regions of the side walls, from the side wall parts (4a to 7a, 4b to 7b) at least in part are adhered to one another.

9. Packaging in accordance with one of the previous claims, characterized in that the folding cut (2) features adhesive flaps (15a, 15b) hinged on the outside to the free side wall (4), which are partially punched from the flap (11) which is hinged to the side wall (4) on the outside, for adhering with the top part (7) and the adjacent side wall regions (4a to 7a, 4b to 7b).

10 Packaging in accordance with one of the previous claims, characterized in that the opening and closing flap (9) features an additional folding line (22).

11. Packaging in accordance with one of the previous claims, characterized in that a side wall features a punch hole (23) backed by a transparent film (24) to form a viewing window.

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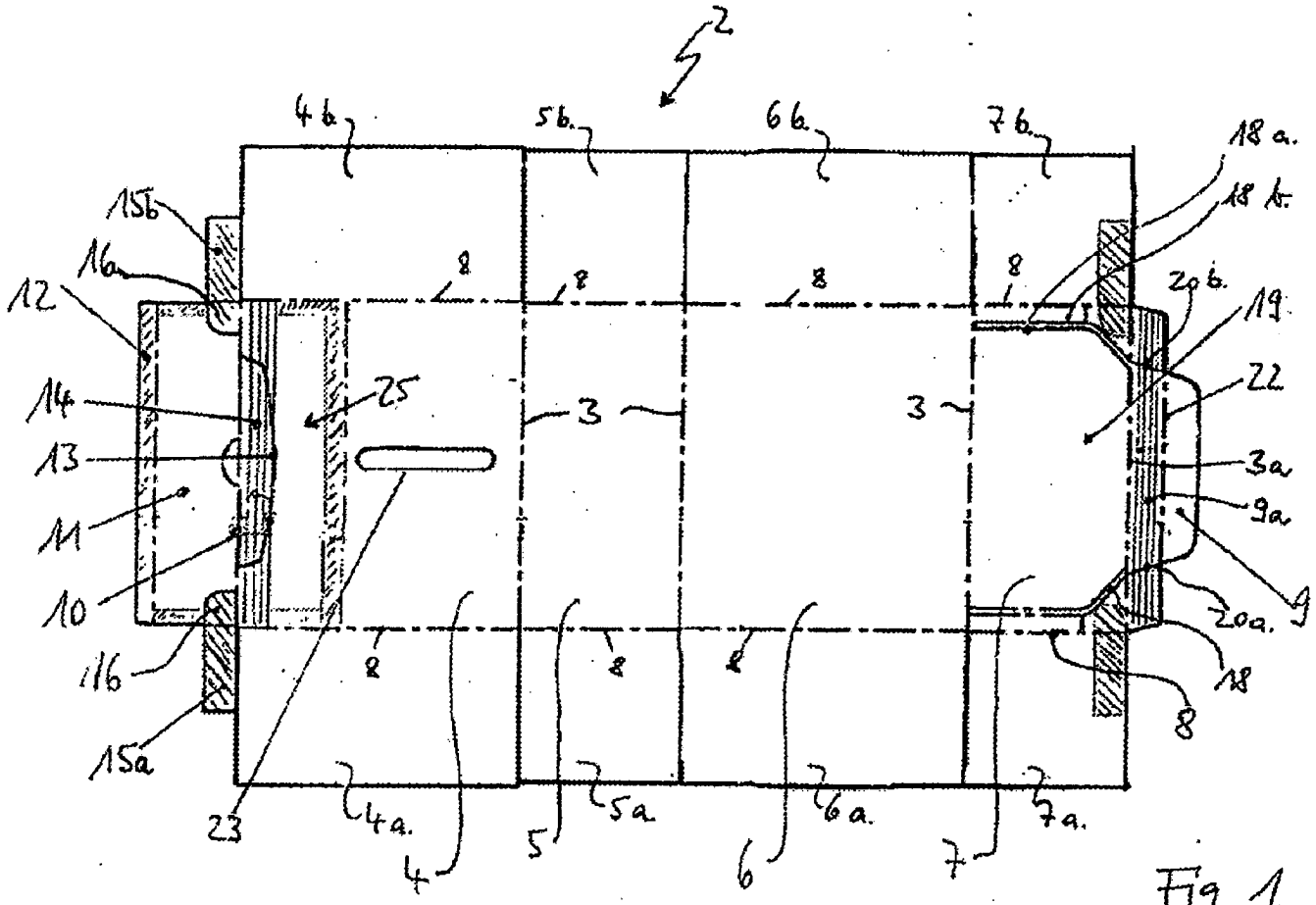
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Fig. 1

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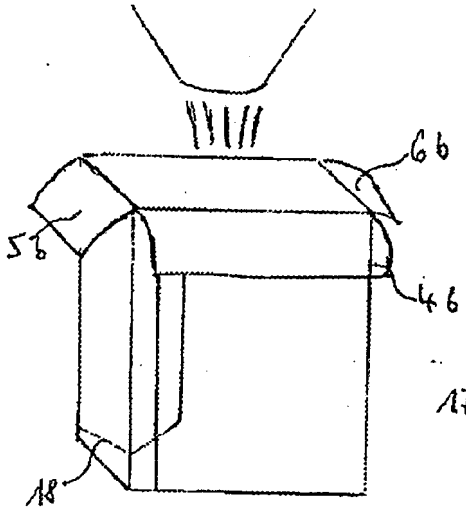

Fig. 2

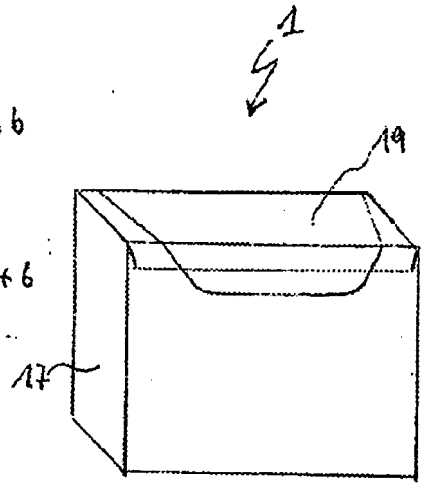

Fig. 3

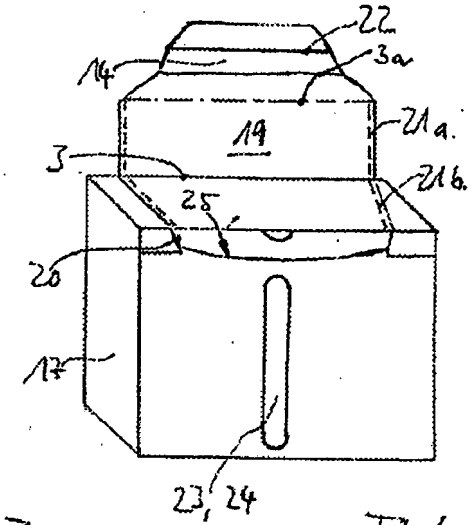

Fig. 4